

WHAT IS CLAIMED IS:

1. A radar system mounted on a vehicle for detecting a target object, comprising:

a transmitting means for transmitting an electromagnetic wave;

a receiving means for receiving the electromagnetic wave reflected by the target object;

a signal processing means for measuring a distance between a vehicle of his/her own and the target object and a relative velocity on the basis of the transmitting electromagnetic wave and the receiving electromagnetic wave; and

an interference detecting means for suspending a transmit operation of the transmitting means under a control of the signal processing means to detect an interference signal from another external device.

2. A radar system mounted on a vehicle according to claim 1, further comprising a beam scanning means that changes a transmit direction of the electromagnetic wave by the transmitting means and a receive direction of the electromagnetic wave by the receiving means,

wherein the interference detecting means suspends the transmit operation in a given scanning direction set by the beam scanning means.

3. A radar system mounted on a vehicle according to claim 1, wherein the interference detecting means detects the interference signal by detecting a rise of noise floor.

4. A radar system mounted on a vehicle according to claim 3, wherein the interference detecting means sets a given interference wave detection threshold value that is higher than a normal signal detection threshold value with respect to the rise of the noise floor.

5. A radar system mounted on a vehicle according to claim 1, wherein the interference detecting means detects the interference signal by detecting a peak of a spectrum.

6. A radar system mounted on a vehicle according to claim 5, wherein the interference detecting means sets a given interference wave detection threshold value that is higher than a normal signal detection threshold value with respect to the peak of the spectrum.

7. A radar system mounted on a vehicle according to claim 1, wherein the interference detecting means detects the interference signal by detecting a rise of the noise floor and a peak of a spectrum.

8. A radar system mounted on a vehicle according to claim

2, wherein the given scanning direction set by the beam scanning means is at an end of a predetermined scanning range.

9. A radar system mounted on a vehicle according to claim 2, wherein the given scanning direction set by the beam scanning means is at both ends of a predetermined scanning range.

10. A radar system mounted on a vehicle according to claim 2, wherein the given scanning direction set by the beam scanning means is at a center of a predetermined scanning range.

11. A radar system mounted on a vehicle according to claim 2, wherein the given scanning direction set by the beam scanning means is a forward direction of the vehicle of his/her own.

12. A radar system mounted on a vehicle according to claim 2, wherein the given scanning direction set by the beam scanning means is sequentially changed within a predetermined scanning range.